

[158Tb IT decay \(10.70 s\)](#)    [1965Sc11,1965Br21,1958Go78](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 141, 1 (2017)	1-Feb-2017

Parent:  $^{158}\text{Tb}$ : E=110.3 12;  $J^\pi=0^-$ ;  $T_{1/2}=10.70$  s 17; %IT decay=100.0  
Activity has been produced by  $^{159}\text{Tb}(\gamma,\text{n})$  and  $^{159}\text{Tb}(\text{n},2\text{n})$  reactions.

[158Tb Levels](#)

E(level) <sup>†</sup>	$J^\pi$ <sup>‡</sup>	T <sub>1/2</sub>	Comments
0	3 <sup>-</sup>	180 y 11	T <sub>1/2</sub> : From $^{158}\text{Tb}$ Adopted Levels.
110.3 12	0 <sup>-</sup>	10.70 s 17	%IT=100; % $\varepsilon$ +% $\beta^+$ <0.01; % $\beta^-$ <0.6 T <sub>1/2</sub> : From $^{158}\text{Tb}$ Adopted Levels.

<sup>†</sup> From  $\gamma$  energy.<sup>‡</sup> From  $^{158}\text{Tb}$  Adopted Levels.[γ\( \$^{158}\text{Tb}\$ \)](#)

E <sub>γ</sub>	I <sub>γ</sub> <sup>#</sup>	E <sub>i</sub> (level)	J <sub>i</sub> <sup>π</sup>	E <sub>f</sub>	J <sub>f</sub> <sup>π</sup>	Mult. <sup>‡</sup>	$\alpha$ <sup>†</sup>	I <sub>(γ+ce)</sub> <sup>#</sup>	Comments
110.3 12	0.92 3	110.3	0 <sup>-</sup>	0	3 <sup>-</sup>	M3	108 6	100.	ce(K)/(γ+ce)=0.52 3; ce(L)/(γ+ce)=0.356 22; ce(M)/(γ+ce)=0.090 7; ce(N+)/(γ+ce)=0.0240 20 ce(N)/(γ+ce)=0.0210 17; ce(O)/(γ+ce)=0.00293 24; ce(P)/(γ+ce)=0.000114 9 E <sub>γ</sub> : Weighted average of 111 2 ( <a href="#">1958Go78</a> ) and 109.9 15 ( <a href="#">1965Sc11</a> ). I <sub>γ</sub> : Calculated from I <sub>γ</sub> (1.0+ $\alpha$ )=100 and $\alpha$ (M3). Mult.: From $\alpha_K(\text{exp})=56$ 3, $\alpha_{L+M}(\text{exp})=50$ 8, and K/L=1.3 3 ( <a href="#">1965Sc11</a> ).

<sup>†</sup> Additional information 1.<sup>‡</sup> From  $^{158}\text{Tb}$  Adopted Gammas.

# Absolute intensity per 100 decays.

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 **$^{158}\text{Tb}$  IT decay (10.70 s)    1965Sc11,1965Br21,1958Go78****Decay Scheme**

Intensities:  $I_{(\gamma+ce)}$  per 100 parent decays  
%IT=100.0

